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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,588

05/11/2007

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ZAHFRI P886US

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EXAMINER

PIPALA, EDWARD J

ART UNIT

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3663

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/590,588	Applicant(s) PREBECK ET AL.	
	Examiner EDWARD PIPALA	Art Unit 3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is in response to the interview of 3/15/11, as well as Applicant's amendments, arguments and remarks filed on 3/22/11.

New claims 21-24 have been added, claims 6-24 are presently pending.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 6-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter based upon consideration of all of the relevant factors with respect to the claim(s) as a whole, wherein the method recited in at least independent claims 6, 10 and 14 is/are held to claim an abstract idea for failing with respect to the machine/transformation test of Bilski, and is/are therefore rejected as ineligible subject matter under 35 U.S.C. 101.

The claims are considered to recite an abstract with respect to the Bilski machine/transformation test in that the above method could be performed by a person since the method is not recited as being performed by a dedicated computer or processor, nor are the method claims recited as embodied upon a computer readable medium used to perform the claimed method(s) by a dedicated computer or special purpose processor.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Hrazdera (US 6,942,595), in view of Applicant's admitted prior art as found in Applicant's background of the invention section of the substitute specification paragraphs [0006-0009].

Applicant's exemplary claim 6 presently recites:

A method of operating a drive motor driving both a tractor, via a tractor drive, and a trailer, via a traveling power takeoff shaft, the traveling power takeoff shaft having at least three discrete, shiftable power takeoff gear stages and the traveling power takeoff shaft being connected to the drive motor, the method comprising the steps of:

defining higher and lower motor rotational speed threshold values for the drive motor;

determining one of a wheel speed and a vehicle speed;

controllingly conforming a rotational speed of the traveling power takeoff shaft to a ratio of at least one of the determined vehicle speed and the determined wheel speed, so that the tractor and the trailer travel at substantially a same speed;

comparing the determined one of the wheel speed and the vehicle speed to the defined higher and lower motor rotational speed threshold values; and

shifting a power takeoff stage to one of a corresponding next higher and the next lower discrete shiftable power takeoff stage, upon attainment of one of the higher and the lower motor rotational speed threshold value so as to maintain an optimal traveling speed for both the tractor and the trailer so that both the tractor and the trailer travel together substantially as integrated unit at substantially the same speed.

As noted in the previous Office action Hrazdera teaches a control system for the drive of a power take-off mechanism on an agricultural tractor that records machine-specific values of

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the implement attached to the tractor, where the drive train between the tractor engine and the power take-off includes a CVT transmission, and column 4, lines 33-37 which further teach that it is possible to run the PTO with the CVT as a ground speed PTO in which its speed is directly aligned with the traveling speed of the agricultural vehicle, and that a conventional transmission may be used in place of the CVT (*which would then provide Applicant's recited speed stages and shifting from a higher to a lower, and vice versa*).

Hrazdera also teaches that the control device is connected with a processor via a signal lead for receiving its output signals, and that the control device is connected for the formation of output signals via input leads, controls, sensors, and actuators for the tractor to read the machine specific parameters of the attached implement, for adjusting any of the motor speed, clutch slip and/or power takeoff stage (gear ratio of the transmission).

While it is noted that Hrazdera is primarily directed to the use of a CVT transmission, paragraphs [0006-0009] of Applicant's background of the invention appear to have already admitted that it is known in the art to make use of a power takeoff drive with a trucking vehicle, clutch and at least two driving gears, so that optimal drive is maintained for both the tractor and the trailer to travel together as a substantially integrated unit and at substantially the same speed.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have implement the teachings of Applicant's admitted prior art relating to the use of a clutch and two speed ratios in conjunction with a power takeoff drive of a trailer, within the context of Hrazdera, since Hrazdera already discloses detection of operating parameters and control of a power takeoff speed ratio with respect to traveling speed of a vehicle specially since Applicant's background of the invention acknowledges that it is known in the art that the speed vehicle and wheels of the take-off may need to be optimized.

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Applicant's dependent claims 7-9 further recite compensating for starting from a stop (zero speed) through the use of clutch slippage, through either electronic or manual control, whereas Hrazdera already teaches the use of an electronic control system for a power take-off which includes a CVT transmission, and where it is notoriously old in the art to manually perform clutch slippage when engaging a motor of a vehicle from a stop.

Applicant's independent claims 10 and 14 essentially recite a method similar to that of previous independent claim 6, with the additional recitations of "electronically matching" and "electronically shifting", respectively, whereas as noted above it would have been obvious to one of ordinary skill in the art of electronic controls for agricultural vehicle having traveling power take-offs to adjust the speed of the take-off with respect to motor speed and vehicle traveling speed.

Dependent claims 11-13 are essentially similar to claims 7-9, as discussed above.

Dependent claims 15-20 additionally reciting specific RPM values for each of the low stage, intermediate stage, and a high stage, please again see the rejection above.

New dependent claims 21-24 further recite a power take off to wheel speed ratio of approximately 40-1, operating the power take off shaft at speeds of between 2.5 to 10 km/h, obtaining different ratios between the rotational speeds of the wheels and the traveling power takeoff shaft, and optimally adjusting slip of a clutch between the power takeoff shaft and the drive motor with respect to one of vehicle speed and wheel speed, whereas it would have been obvious to one of ordinary skill in the art at the time the invention was made since these values are within the normal operational values conventionally associated with such vehicles and where optimizing clutch slip is also a conventional use of a clutch in such an embodiment.

Response to Arguments

4. Applicant's arguments during the interview of 3/15/11 and filed on 3/22/11 have been fully considered but they are not seen to be persuasive.

After consultation with respect to the patentability of the pending claims, particularly with respect to the above grounds of rejection based upon Hrazdera and Applicant's admitted prior art as noted above, it was indicated that this Office action should be made final except for the presence of a new rejection of all pending claims 6-24 under 35 U.S.C. 101.

Applicant's initial comments with respect to hilly terrain do not seem to substantively pertain to the claimed invention, whereas noted paragraphs [0006-0009] of Applicant's admitted prior art/background of the invention seem to indicate that it is known in the art to make use of a clutch and two gear transmission in conjunction with a power takeoff drive of a trailer.

While it has been acknowledged above that Hrazdera does primarily disclose the use of a variable ratio transmission in the form of a CVT, in view of the cited paragraphs of Applicant's background of the invention the position that it would have been obvious to one of ordinary skill in the art to either control the CVT of Hrazdera in a stepped manner so as to exhibit low, intermediate and a high stage with respective shaft speed values, or alternatively to actually substitute a stepped type of transmission (having three stages) and a clutch, particularly in view of Applicant's background of the invention indicating that the use of a two gear ratio transmission and clutch are already known in the art at the time the invention was made.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWARD PIPALA whose telephone number is (571)272-1360. The examiner can normally be reached on M-F 9:30 - 6.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Edward Pipala/
Examiner, Art Unit 3663